UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

DATE: October 29, 2014

SUBJECT: Response to Comments from CRA regarding the Human Health Risk Assessment, Pristine, Inc., Site, Reading, Ohio, Dated June 2014.

FROM: Andrew Podowski
Toxicologist

TO: Leslie Patterson, RPM

I have reviewed the respondents (CRA) Comment response memo, Revised report text and table 4.2, Revised appendix A text, and Revised appendix D text and new tables 4, 5, 6, and I have the following comments:

In the Comment response memo, the response to USEPA Comment 8 appears to be flawed. That is, the respondents are trying to explain that for tap water RSLs potable water is being used on a regular basis (involving water consumption and bathing/showering exposure for children and adults on a daily basis for 350 days per year) whereas an industrial scenario would involve only incidental non-ingestion contact by adults at a lesser frequency according to the type of water use and the number of working hours and days etc., … thus the average is more indicative of the quality of water being pumped.

Using this kind of rationale, we would also have to use average concentrations for residential scenarios as water flows from the tap and shower heads over time. However, we estimate Central Tendency, as well as RME exposures and risk, primarily because we often lack enough samples to obtain reliable estimates of true average concentrations for exposure. Thus, we use the upperbound estimates for concentration, based on limited samples, in order not to underestimate the true average concentration and risk.
The same approach is applied to just about every other receptor scenario and pathway. Granted, that the industrial well, as described by the respondents could result in the use of average concentrations, rather than upperbound concentrations, but then, this would only represent one of many possible industrial scenarios, and it would have to be based on a large sample dataset for groundwater. So the respondents are proposing a non-conservative industrial scenario, based on the assumption that a large sampling dataset is, or will be available.
Besides that, the upperbound concentration represents a possible upper value for the true average concentration, in the case of limited sampling. Therefore, it should be used.

I would, therefore, recommend that the respondents also develop a more conservative industrial scenario, using upperbound concentrations.
I would also like the respondents to share the concentration data they would use, for the two chemicals in question, so that we can verify the exposure and risk estimates.

If you have any questions, I can be reached at 312-886-7573.